Revision 5

Store at -20C

#3841

Phospho-LIMK1 (Thr508)/LIMK2 (Thr505) Antibody

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H	Transfected Only	72	Rabbit	#P53671, #P53667	3985, 3984

Product Usage Information

Application	Dilution
Western Blotting	1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Phospho-LIMK1 (Thr508)/LIMK2 (Thr505) Antibody detects transfected levels of LIMK1 and LIMK2 only when phosphorylated at threonine 508 or 505.

Species predicted to react based on 100% sequence homology

Mouse, Rat

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Thr508 of human LIMK1. Antibodies are purified by protein A and peptide affinity chromatography.

Background

LIM kinases (LIMK1 and LIMK2) are serine/threonine kinases that have two zinc finger motifs, known as LIM motifs, in their amino-terminal regulatory domains (1). LIM kinases are involved in actin cytoskeletal regulation downstream of Rho-family GTPases, PAKs, and ROCK (2,3). PAK1 and ROCK phosphorylate LIMK1 or LIMK2 at the conserved Thr508 or Thr505 residues in the activation loop, increasing LIMK activity (3-5). Activated LIM kinases inhibit the actin depolymerization activity of cofilin by phosphorylation at the amino-terminal Ser3 residue of cofilin (6,7).

Background References

1. Okano, I. et al. (1995) *J. Biol. Chem.* 270, 31321-31330.
2. Maekawa, M. et al. (1999) *Science* 285, 895-898.
3. Edwards, D. C. et al. (1999) *Nat. Cell Biol.* 1, 253-259.
4. Ohashi, K. et al. (2000) *J. Biol. Chem.* 275, 3577-3582.
5. Sumi, T. et al. (2001) *J. Biol. Chem.* 276, 670-676.
6. Arber, S. et al. (1998) *Nature* 393, 805-809.
7. Yang, N. et al. (1998) *Nature* 393, 809-812.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human

Trademarks and Patents

Limited Uses

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